

PROJECT 10073 RECORD CARD

1. DATE 15 June 1963	2. LOCATION 33.4°N 175.0°W (Pacific)	12. CONCLUSIONS <input type="checkbox"/> Was Balloon <input type="checkbox"/> Probably Balloon <input type="checkbox"/> Possibly Balloon <input type="checkbox"/> Was Aircraft <input type="checkbox"/> Probably Aircraft <input type="checkbox"/> Possibly Aircraft <input type="checkbox"/> Was Astronomical <input type="checkbox"/> Probably Astronomical <input type="checkbox"/> Possibly Astronomical <input checked="" type="checkbox"/> Other <u>Satellite ECHO I</u> <input type="checkbox"/> Insufficient Data for Evaluation <input type="checkbox"/> Unknown
3. DATE-TIME GROUP Local _____ GMT 16/0947Z	4. TYPE OF OBSERVATION <input type="checkbox"/> Ground-Visual <input type="checkbox"/> Ground-Radar <input checked="" type="checkbox"/> Air-Visual <input type="checkbox"/> Air-Intercept Radar	
5. PHOTOS <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. SOURCE military	
7. LENGTH OF OBSERVATION 11 minutes	8. NUMBER OF OBJECTS one	9. COURSE NE
10. BRIEF SUMMARY OF SIGHTING One bright white object about the size of a star appearing at 30 deg elevation heading 050 deg. Eaded at 15 deg elevation. Speed slow. In sight for 11 min.	11. COMMENTS At 16/0907Z ECHO crossed the equator heading NE at 137 deg E. This places the Satellite in a position to be observed by the witnesses.	

ATIC FORM 329 (REV 26 SEP 52)

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE BRANCH
UNCLASSIFIED MESSAGE

Z

INCOMING

AF IN : 1838 (16 Jun 60) S/jej

INFO : NIN-9, XOP-1, XOPX-4, SAF-OS-3, Army-2, Navy-2,
CMC-8, JCS-35, OSD-15, CIA-11, NSA-7, DIA-25, DIA/CIIC-2
-125-

Pg 1 of 2

SMB C018

ZCHQA533ZCECA086

..... YY RUEAHQ

DE RUHPF B024

ZNR

Y 161011Z

FM COMBARPAC

TO RUHPHH/COMHAWSEAFRON

RUHLKM/CINCPACAF

RUAUAAH/HADD KUNIA

ZEN/CINCNORAD

INFO RUECW/CNO

RUEAHQ/COFS USAF

RUHPA/CINCPAC

RUHPB/CINCPACFLT

RUHAFS/CINCUSARPAC

RUHLKMP/PACAFBASECOM HICKAM

RUECW/SECNAV

NAVY GRNC

BT

UNCLAS.

A. JANAP 146D

1. CIRVIS REPORT

2. BARRIER AIRCRAFT N43200

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE BRANCH
UNCLASSIFIED MESSAGE

INCOMING

AF IN : 1838 (16 Jun 63)

Pg 2 of 2

3. ONE BRIGHT WHITE OBJECT ABOUT SIZE OF STAR
4. AIRCRAFT POSIT 33-40N 175-00W
5. 160930Z
6. 30 DEGREES ABOVE HORIZON
7. COURSE 050 DEGREES
8. SPEED SLOW
9. OBJECT 45 DEGREES ABOVE HORIZON AT 0936Z
OBJECT FADED 15 DEGREES ABOVE HORIZON AT 0947Z

10. EVALUATION UNKNOWN

BT

16/1012Z

NOTE: Adv cy delivered to XOPX, NIN & DIA.

15 16/0930 DEPARTMENT OF THE AIR FORCE
STAFF AIR FORCE BRANCH
ENCLOSURE MESSAGE

INCOMING

WAS
ECDO

Greene
91

AF IN : 1861 (16 Jun 63) M/gj1

INFO : NIN-9, XOP-1, XOPX-4, SAF-OS-3 JCS-35, ARMY-2,
CMC-8, OSD-15, CIA-11, NSA-7, DIA-25, DIA/CIIC-2 (123)

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SMB A026

CHQA539Z CQJA132

OO RUEAHQ

DE RUHLKH 3

ZNR

O 161039Z

FM 326 AIR DIV KUNIA FACILITY HAWAII
TO RUHLKM/PACAF HICKAM AFB HAWAII
RUHPHH/CCM HAWSEAFRON PEARL HARBOR HAWAII
INFO RUEAHQ/CSAF USAF WASH DC
RUECW/CNO WASH DC
RUECW/SECNAV WASH DC
RUWGALB/CINCNORAD ENT AFB COLO
RUHPA/CINCPAC CAMP H M SMITH HAWAII
RUHAFS/CINCUSARPAC FT SHAFTER HAWAII
RUHPB/CINCPACFLT PEARL HARBOR HAWAII
RUUAUZ/COMUSJAPAN FUCHU AS JAPAN
RUAMC/COM USKOREA SEOUL KOREA
RUAGFL/COM USTDC TAIPEI TAIWAN
RUCSBRB/C INCSAC OFFUTT AFB NEBR
AF GRNC
BT
UNCLAS/HADOC-D 1068 CIRVIS

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE BRANCH
UNCLASSIFIED MESSAGE

INCOMING

AF IN : 1861 (16 Jun 63)

Pg 2 of 2.

PACIFIC BARRIER A/C NAVY-1 43200

SIGHTED ONE BRIGHT WHITE OBJECT ABOUT THE SIZE OF A STAR
33 DEGREES 40 MINS NORTH 175 DEGREES 00 MIN WEST A 16/0930Z
INITIALLY APPEARED 30 DEGREES ABOVE THE HORIZON HEADING 050
DEGREES, TRAVERSED TO 45 DEGREES ABOVE HORIZON AT 16/0936.
FADED 15 DEGREES ABOVE HORIZON A 16/0947Z SPEED SLOW. NO
ELEVATION.

BT

16/1041Z JUN RUHLKH

NOTE: Adv cy's del to NIN, DIA, and XOPX.

NNNN

SMITHSONIAN ASTROPHYSICAL OBSERVATORY, CAMBRIDGE, MASSACHUSETTS

JUNE 5, 196

SATELLITE 1960 IOTA 1, ECHO 1

These predictions are based on orbital elements revised on June 3, 1981.
 $T_0 = \text{June 4.0}$, times are in days, U.T.
 Argument of perihelion = $274^\circ 306 + 3^\circ 3877 (t - T_0)$
 Right ascension of ascending node = $203^\circ 064 - 3^\circ 2982 (t - T_0)$

Inclination = $47^\circ 23' 57''$
 Eccentricity = $0.044912 + 6.22 \times 10^{-4} (t - T_0)$
 Semi-major axis = 7.842635 megameters
 Mean anomaly (Rev.) = $0.32530 + 12.498859 (t - T_0) + 3.0853 \times 10^{-4} (t - T_0)^2$

EQUATOR S-N												EQUATOR S-N												EQUATOR S-N												
SATELLITE 1960 IOTA 1 FOR OTHER LATITUDES												SATELLITE 1960 IOTA 1 FOR OTHER LATITUDES												SATELLITE 1960 IOTA 1 FOR OTHER LATITUDES												
TIME (UT)	LONG. (W)	LAT.	SOUTH-NORTH			NORTH-SOUTH			TIME (UT)	LONG. (W)	LAT.	SOUTH-NORTH			NORTH-SOUTH			TIME (UT)	LONG. (W)	LAT.	SOUTH-NORTH			NORTH-SOUTH												
			TIME	LONG.	HT.	BEAR.	TIME	LONG.	HT.	BEAR.	TIME	LONG.	HT.	BEAR.	TIME	LONG.	HT.	BEAR.	TIME	LONG.	HT.	BEAR.	TIME	LONG.	HT.	BEAR.	TIME	LONG.	HT.	BEAR.						
JUNE 8, 1963																																				
1 39.0	90.67	47.4	29.9	-82.43	1135	90.00	29.9	-82.46	1135	90.00	1 35.6	106.43	47.4	29.3	-82.56	1119	90.00	29.3	-82.60	1119	90.00	1 39.0	104.41	1149	107.74	2 34.1	119.79	45.0	24.2	-60.60	1103	72.30	35.0	-104.41	1149	107.74
2 34.1	119.79	45.0	24.2	-60.60	1103	72.30	35.6	-104.27	1147	107.74	3 28.7	135.54	45.0	23.7	-60.79	1071	72.30	35.0	-104.41	1149	107.74	3 29.2	148.90	40.0	19.8	-45.43	1085	60.70	39.6	-119.55	1147	107.74				
3 29.2	148.90	40.0	19.8	-45.43	1085	60.70	40.2	-119.41	1141	119.40	4 23.7	164.65	40.0	19.3	-45.54	1023	60.70	39.6	-119.55	1147	107.74	4 24.3	178.02	35.0	16.5	-35.86	1031	54.00	43.0	-129.06	1154	126.14				
4 24.3	178.02	35.0	16.5	-35.86	1031	54.00	43.5	-128.95	1128	126.10	5 18.8	193.76	35.0	16.1	-35.95	983	54.00	43.0	-129.06	1154	126.14	5 19.4	187.14	30.0	13.7	-28.56	999	49.40	46.0	-136.34	1145	130.74				
5 19.4	187.14	30.0	13.7	-28.56	999	49.40	46.5	-136.22	1112	130.70	6 13.9	222.68	30.0	13.4	-28.64	946	49.40	46.0	-136.34	1145	130.74	6 14.5	216.26	20.0	8.8	-17.32	938	43.70	51.2	-147.50	1116	136.44				
6 14.5	216.26	20.0	8.8	-17.32	938	43.70	51.6	-147.40	1071	136.40	7 9.0	251.94	20.0	8.6	-17.37	881	43.70	51.2	-147.50	1116	136.44	7 9.6	203.37	0.	0.	0.	826	40.00	60.7	-164.65	1028	140.24				
7 9.6	203.37	0.	0.	0.	826	40.00	80.9	-164.59	971	140.10	8 4.1	281.10	0.	0.	0.	772	40.00	60.7	-164.65	1028	140.24	8 10.4	197.14	-20.0	-8.4	17.41	740	43.80	-45.4	148.96	915	136.34				
8 10.4	197.14	-20.0	-8.4	17.41	740	43.80	-45.4	148.98	862	136.30	9 50.1	310.21	-20.0	-8.2	17.45	698	43.80	-45.4	148.98	915	136.34	9 10.0	187.61	-10.0	-12.4	28.70	708	49.50	-40.6	137.69	853	130.64				
9 10.0	187.61	-10.0	-12.4	28.70	708	49.50	-40.7	137.66	807	130.50	10 54.2	334.92	-30.0	-12.6	28.84	677	49.50	-40.6	137.69	853	130.64	10 54.9	352.73	-35.0	-15.3	36.16	696	54.10	-38.0	130.35	821	126.04				
10 54.9	352.73	-35.0	-15.3	36.16	696	54.10	-38.2	130.31	780	126.00	11 49.3	349.3	-35.0	-15.0	36.23	671	54.10	-35.0	130.35	821	126.04	11 50.0	216.49	-40.0	-18.1	45.86	687	60.80	-35.1	120.70	786	119.24				
11 50.0	216.49	-40.0	-18.1	45.86	687	60.80	-35.3	120.65	752	119.20	12 44.4	37.55	-40.0	-17.8	45.92	671	60.80	-35.0	120.70	786	119.24	12 49.1	203.37	-45.0	-21.0	61.19	685	72.40	-31.1	105.39	745	107.64				
12 49.1	203.37	-45.0	-21.0	61.19	685	72.40	-31.4	105.37	721	107.60	13 39.4	66.66	-45.0	-21.6	61.26	679	72.40	-31.1	105.39	745	107.64	13 49.4	186.37	-47.4	-26.6	83.24	695	90.00	-26.3	83.36	705	90.00				
13 49.4	186.37	-47.4	-26.6	83.24	695	90.00	-26.6	83.26	695	90.00	14	67.4	-47.4	-26.3	83.32	705	90.00	-26.3	83.36	705	90.00	14	50.0	-82.60	1119	90.00	29.2	-82.64	1113	90.00						
14 50.0	-82.60	1119	90.00	29.2	-82.64	1113	90.00	15	34.5	95.77	47.4	29.2	-82.60	1113	90.00	29.2	-82.64	1113	90.00	15	39.3	-60.76	1062	72.30	34.0	-104.43	1147	107.74								
15 39.3	-60.76	1062	72.30	34.0	-104.43	1062	72.30	16	24.7	153.94	40.0	19.2	-45.57	1011	60.70	39.5	-119.59	1159	119.44	16 25.5	167.42	-35.0	-15.8	35.88	1021	54.00	-42.9	-129.12	1159	126.14						
16 25.5	167.42	-35.0	-15.8	35.88	1021	54.00	-43.4	128.98	1136	126.10	17 19.7	181.10	35.0	16.0	-35.98	970	54.00	-42.8	-129.12	1159	126.14	17 20.6	194.54	-30.0	-13.6	36.16	1016	54.10	-45.8	-136.37	1152	130.74				
17 20.6	194.54	-30.0	-13.6	36.16	1016	54.10	-46.4	136.24	1121	130.70	18 14.8	212.21	30.0	13.1	-28.66	933	49.40	-45.8	-136.37	1152	130.74	18 19.7	223.46	-20.0	-8.7	17.33	925	43.70	-51.1	-147.53	1126	136.44				
18 19.7	223.46	-20.0	-8.7	17.33	925	43.70	-51.6	147.42	1082	136.40	19 9.9	241.32	20.0	8.5	-17.38	866	43.70	-51.0	-147.53	1126	136.44	19 10.8	254.77	-0.	0											